REPORT RESUMES

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THE NATIONAL YOUNG FARMER STUDY.
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IN AN EFFORT TO DETERMINE PROCEDURES ASSOCIATED WITH SUCCESSFUL YOUNG FARMER INSTRUCTIONAL PROGRAMS, A NATIONAL STUDY WAS CONDUCTED TO (1) CLARIFY PHILOSOPHY AND OBJECTIVES, (2) IDENTIFY CHARACTERISTICS OF SUCCESSFUL EXISTING PROGRAMS, (3) CONSOLIDATE SUCCESSFUL PRACTICES INTO PATTERNS SUITABLE FOR TESTING, (4) EVALUATE PROPOSED PATTERNS UNDER EXPERIMENTAL CONDITIONS, AND (5) RECOMMEND PRACTICES. THE COMMITTEE WORKED WITH THE U.S. OFFICE OF EDUCATION TOWARD A REVISION OF "EDUCATIONAL OBJECTIVES IN VOCATIONAL AGRICULTURE." PROGRAM CHARACTERISTICS DATA ON 333 SUCCESSFUL PROGRAMS IN 40 STATES WERE COLLECTED FROM TEACHERS, ADMINISTRATORS, STUDENTS, AND SUPERVISORY AND TEACHER EDUCATION STAFFS. PROGRAM PATTERNS, BASED ON THE DATA, WERE INITIATED IN TRIAL CENTERS AT THE RATE OF ONE PER 50 TEACHERS IN EACH STATE. OF 264 PILOT CENTERS, 227 COMPLETED 2 YEARS IN THE PROGRAM, AND 28 NEW CENTERS WERE ADDED. STUDENT ACHIEVEMENT AND PROGRAM SUCCESS WERE EVALUATED AFTER A 2-YEAR PERIOD BY COMPARING BEGINNING AND FINAL TEST SCORES AND OTHER DATA. RESULTS FROM 231 PROGRAMS IN 35 STATES, INVOLVING 2,788 YOUNG FARMERS WERE ANALYZED AS A BASIS FOR MAKING RECOMMENDATIONS FOR FUTURE INSTRUCTIONAL PROGRAMS. FINDINGS INCLUDED--(1) DURING THE PILOT PROJECT PERIOD, THE CENTERS INCREASED IN DAY SCHOOL ENROLLMENT, IN TEACHER TIME DEVOTED TO AGRICULTURE, AND IN ADULT ENROLLMENTS, (2) TRAINING IN LEADERSHIP AND PARTICIPATION IN SOCIAL EVENTS IN ADDITION TO AGRICULTURE WERE OFFERED, AND (3) THE PROGRAM STRENGTHENED VALUES RELATING TO FARMING AND RURAL LIFE WHICH ARE FUNCTIONAL FOR SUCCESS IN MODERN AGRICULTURE. (JM)

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THE NATIONAL YOUNG FARMER STUDY

A Project of the American Vocational Association
Committee on Research in Agricultural Education

VT 002213

FOREWORD

This report of a research project which has become generally known as the National Young Farmer Study is the product of several years' effort on the part of vocational agriculture leaders throughout the Nation. The project was initiated through the Research Committee of the Agricultural Education Section of the American Vocational Association and was coordinated by that committee throughout the period of the investigation. Actual operations, however, were conducted through the organizational machinery of the various regional conferences in agricultural education, regional agricultural education research conferences, and, at times, State and institutional organizations. In addition to the effort of members of the Research Committee during the period of the study, State project leaders, State supervisors and teacher educators in agricultural education, as well as teachers of vocational agriculture in the cooperating States, contributed materially to the successful completion of the total undertaking. This report was prepared by Dr. R. J. Agan, Department of Agricultural Education, Kansas State University, Manhattan; Dr. D. L. Blake, Department of Education, Iowa State University of Science and Technology, Ames; Dr. G. L. O'Kelley, Jr., Agricultural Education Department, University of Georgia, Athens; and Dr. Murray A. Straus, University of Minnesota, St. Paul.

The U. S. Office of Education, through its Division of Vocational and Technical Education, provided support and assistance throughout the study. The Agricultural Education Program Specialists for the various regions, and especially the Specialists in Teacher Training and Research provided much leadership and assistance.

Walter M. Arnold
Assistant Commissioner for
Vocational and Technical Education

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INTRODUCTION

Background of the National Study

The National Young Farmer Study was designed in 1953. Its general purpose was to determine procedures for further development of programs of young farmer instruction in the public schools. The project as designed was approved by the Agricultural Education Section of the American Vocational Association in 1953.

The young farmer classes, as part-time classes for out-of-school young men, started in the early 1920's. Enrollment reached a prewar peak of 62,489 and a postwar low of 12,765. The enrollment then increased slowly and by 1953 there were 47,835 students in the program. By 1959, when the first portion of this study was concluded, the number had risen to 55,507, and in 1962 it reached 78,977. (5)

The National Committee on Research in Agricultural Education, The American Vocational Association, (6), in its introduction to the description of the proposed study, stated that:

> neither enrollments nor accomplishments in young farmer instructional programs of vocational agriculture have attained the levels many educational leaders would consider as minimum goals normally expected in this area. The Institutional On-Farm Training Program of the Veterans Administration following World War II lent new impetus to agricultural education programs for out-of-school farm youth. Enrollments in the classes reached extremely high levels in the late 1940's. One result of this program was an interpretation by many educators that these enrollment figures reflected both a recognized need and a growing demand for such out-of-school programs. It must now be admitted that vocational education in agriculture has not yet projected either this need or demand into the kind of young farmer instructional program which the situation apparently warrants.

This situation helped leaders in agricultural education to recognize the needs of the young farmer group. These needs were so challenging and demanding that it was decided that research should be undertaken to give direction to the proposed program of expansion.

Objectives

The over-all objective of the project was the determination of procedures associated with successful instructional programs for young out-of-school farmers enrolled in classes in vocational agriculture. The following goals, as stated by the National Committee, were set:

1. To clarify statements of the underlying philosophy and objectives of the program of vocational education in agriculture as a whole in such a manner as to bring the young farmer class into proper perspective as an important and integral part of the vocational agriculture instructional program.
2. To analyze existing successful young farmer instructional programs in order to identify their essential characteristics.
3. To identify proven practices associated with successful young farmer instructional programs and to consolidate these practices in the form of patterns suitable for testing and evaluating in an experimental situation.
4. To evaluate under experimental conditions proposed patterns theoretically associated with successful programs.
5. To present the findings of the research in terms of recommendations for expanding the young farmer instructional program on a national scale.

These goals were used as a guide in formulating five steps for conducting the study, as follows:

1. Prepare a workable statement of the philosophy and objectives of the vocational agriculture program as a whole with proper emphasis upon the young farmer instructional program and as an integral part of the same.
2. Make a status study of a representative sampling of young farmer classes identified as "successful" by State supervisors and teacher trainers.
3. Analyze findings of status study and develop patterns of young farmer instructional programs for experimental pilot center testing over a two-year period.
4. Conduct and evaluate the pilot programs which were projected on the basis of status study findings.
5. Write a report of pilot project together with recommendations for implementation of findings.

Procedures

The procedures followed by the National Committee were organized under five "stages". They were as follows:

STAGE I

1. Work with the Agricultural Education Branch of the U. S. Office of Education toward a revision of Monograph 21, Educational Objectives in Vocational Agriculture.

STAGE II (December 1956 - January 1958)

1. Make 10 percent sampling of the successful young farmer instructional program in each State. Successful programs to be designated by the State supervisor in the State concerned. (In practice this called for the State supervisors of agricultural education to designate a number of the most successful young farmer instructional programs in their respective States equal to 10 percent of the total number being taught.)

2. Prepare instruments for analyzing the successful programs in terms of identifying characteristics.

3. Use prepared instruments to collect data from:

   a. Teachers of vocational agriculture in sample center;
   b. School administrator in sample center;
   c. Twenty percent sampling of students in sample center;
   d. Supervisors and teacher trainers in each State.

4. Consolidate completed instruments at some central point for processing. (State project leaders were designated to collect and consolidate data within each State. The National Committee summarized and analyzed all data at the national level.)

5. Convert data to IBM cards and process.

6. Summarize findings of status study.

STAGE III (Target date for completion - November 1, 1957)

1. Analyze and interpret status study data to identify essential characteristics of the successful programs.

2. Project pattern programs from above data for experimental testing and evaluation.

STAGE IV (August 1958 - June 1961)

1. Establish pilot centers in each State for testing proposed patterns at a rate of one center for every 50 teachers of vocational agriculture, or fraction thereof, employed in the State.

2. Pilot centers to organize and conduct young farmer instructional programs, in conformity with proposed pattern, for period of two years beginning July 1, 1959.

3. Prepare evaluation device for evaluating pilot programs consisting of a battery of test forms to be completed by the teachers and students in each center at the beginning and end of the trial period.

4. Evaluate pilot programs in terms of the beginning and ending data collected.

STAGE V (July 1961 - December 1962)

1. Consolidate, summarize, and interpret the evaluating findings.

2. Prepare and publish a report of project together with recommendations for application of findings for future development of sound young farmer instructional programs.

In Stage II, four schedules were used:

Schedule A - Characteristics of successful programs of young farmer instruction in vocational agriculture (to be completed by teachers of successful programs).

Schedule B - The status of young farmers now participating in the instructional program in vocational agriculture (to be completed by young farmers enrolled in successful programs).

Schedule C - Opinions and judgments of supervisors and teacher trainers regarding the program of instruction and activities to be provided in vocational agriculture for young farmers.

Schedule D - Opinions and judgments of superintendents or principals regarding the program of instruction and activities to be provided in vocational agriculture for young farmers.

The data from Schedules C and D were summarized and reported in _Young Farmer Education As Viewed by School Superintendents and Principals and Teacher Trainers and Supervisors of Agricultural Education_ (OE-81000), issued in 1959. (1) The present report concerns the summary of Schedules A and B as listed above.

Three additional schedules were prepared and sent by the National Committee to the cooperating States to be used at the beginning and end of Stage IV. They were Schedule X, Parts A, B, C, to be completed by young farmers in the trial centers; Schedule Y, Parts A and B, to be completed by the teachers in the trial center classes; and Schedule Z, Parts A and B, to be filled in by the teacher while interviewing the enrollee. A class record form to be submitted by the teacher at the end of the two-year trial period was included. These schedules were designed to provide data which might help in determining the scope, nature, and effectiveness of the program in the pilot centers. It was hoped that a pattern of successful practices could be constructed which might be used by public schools that heretofore had not included the young farmer program as a part of vocational agriculture.

Summary of Procedures

In January 1957, the State supervisors were requested to designate 10 percent of their young farmer programs as participants in the national study. Analysis schedules were distributed subsequently to State project leaders for surveying these programs in the various States.

In November 1957, these first schedules of the study were tabulated and a report prepared and published. This first schedule and report covered 333 young farmer programs from 40 States. The data were processed at the statistics laboratory at VPI.

As a result of this first stage of the study, criteria for establishing trial centers were formulated and released in August 1958. This was the second stage of the study and involved the submitting of these criteria to State project leaders and the subsequent establishment of trial centers beginning their operation on July 1, 1959. A minimum of one trial center was requested in each State for each 50 teachers of vocational agriculture or fraction thereof.

Instructional programs based on these criteria were conducted in the trial centers for a two-year period, July 1959 through June 1961. Records of class enrollment, attendance, course content and other items of data were collected at the local levels and held for study.

At the completion of the two-year trial programs in June 1961, schedules for the final stage of the study were provided through State project leaders to the trial center teachers. During this two-year period some students had dropped out of programs and for various reasons some centers did not complete the full two years. The final series of instruments were gathered and tabulated on 231 programs in 35 States, involving 2,788 young farmers and were reported to the National Committee for analysis.

PARTICIPATION IN THE NATIONAL STUDY

States That Participated

During the year 1958 the cooperating States were asked to select the schools that would serve as pilot centers. Each State was to have a minimum of one center for each 50 or fraction of 50 teachers of vocational agriculture employed in the State. Each State was permitted to establish as many additional centers as it desired.

The project director in each State then sent invitations to administrators and teachers in these pilot centers to participate in the study. In most cases State leaders, teachers, and some of the administrators attended. Schedules were distributed and instruction given regarding their use. Schedule Z, Part B, called for teacher evaluation of practices. These practices were to be suggested by each State and each school was to select from this list those practices that would be evaluated locally.

As can be observed in table 1, some States failed to participate in the study. The figures in column four represent the number of men who entered the program at the beginning. Other men entered soon enough after the start of the program to complete data forms, but were not represented in the initial count. The figures in column five represent the number of men reported as completing two years of training. However, some schools failed to send in completed schedules at the close of the two-year period. This was due to various reasons such as change in teachers and administrative problems.

The Young Farmers Who Enrolled

In the classes which were already under way when the study began, each young farmer who participated in the study completed an information sheet about himself (Schedule X, Part A) as of July 1, 1959, or as soon thereafter as possible.

Table 1. States Participating in the National Study

States	No. of centers 1959	No. of centers completing 2 years	New centers added during 2-year period	Students enrolled 1959	Students completing 2 years
Alabama	11	11	0	142	125
Arkansas	10	10	0	112	104
Colorado	1	1	0	10	9
Connecticut	1	1	0	8	8
Delaware	1	1	0	10	13
Florida	9	8	0	94	85
Georgia	10	9	2	151	162
Hawaii	2	0	0	24	24
Illinois	15	26	9	160	269
Indiana	3	2	0	31	237
Kansas	7	3	0	74	14
Kentucky	16	9	0	176	27
Louisiana	12	8	0	124	92
Maine	3	2	0	34	63
Maryland	2	2	0	24	23
Massachusetts	1	1	0	11	16
Michigan	11	8	0	97	83
Mississippi	8	5	0	75	52
Missouri	8	2	0	85	12
Nebraska	3	2	0	30	20
Nevada	1	0	0	12	10
New Hampshire	1	0	0	7	7
New Jersey	1	1	0	21	18
North Carolina	21	15	1	307	223
North Dakota	3	2	0	47	19
Ohio	9	6	0	95	56
Oklahoma	6	6	0	67	60
Pennsylvania	12	28	16	173	335
South Carolina	15	14	0	123	102
Tennessee	6	2	0	78	25
Texas	21	10	0	194	107
Utah	4	3	0	57	32
Vermont	1	1	0	9	7
Virginia	13	13	0	179	168
Washington	2	2	0	29	23
West Virginia	3	3	0	22	25
Wisconsin	10	10	0	174	163
Wyoming	1	0	0	6	6
Totals	264	227	28	3,072	2,824

For new classes, enrollees were instructed to complete the information sheet when the classes were first organized or as soon thereafter as possible. Some of the newly organized classes enrolled in the fall of 1959.

Data on Enrollees

Data concerning the personal and educational background of the young farmers who were enrolled at the time this study was started are presented in table 2. The ages of the participants ranged from 16 to 60. The mode of the group was 23, with 906 participants in the modal group. A total of 61.24 percent completed 12 years of school. Nearly 12 percent attended 1 to 4 years of college, with 3.2 percent completing the 4 years of college. About 13.5 percent of the enrollees had some non-college training. It was found that 18.32 percent of the participants had some institutional-on-farm training. Nearly one-third (30.17 percent) of the enrollees had 1 to 3 years of high school vocational agriculture training. Likewise, 35.9 percent of the group completed 4 years of high school vocational agriculture which, combined with the group having 1 to 3 years of high school vocational agriculture training, gave a total of 66.07 percent or approximately two-thirds of the group that had had some vocational agriculture training in high school. The data disclosed that 45.64 percent of the enrollees had 2 to 8 years of class work in the young farmer class. It was also found that 11.18 percent of the participants had no farm work experience prior to the age of 18. A total of 12.85 percent had 1 to 5 years of experience on the farm prior to age 18.

With a total of approximately 15 percent getting some to 4 years of college training, it would seem imperative that more training be provided for young farmers who are getting established in farming. Two-thirds of

Table 2. Personal Data on the Young Farmers Who Enrolled

Comparative items	Range	Mode	Number of responses in modal group	Modal percent of total number
Age	16-60	23	906	23.71
School grades completed	1-12	12	2,340	61.24
College years	0-8	0	2,465	64.51
Non-college training years	0-9	0	1,929	50.48
I.O.F.* months	0-6	0	1,649	43.16
High school vo.-ag. years	0-5	4	1,372	35.90
Young farmer class years	0-8	1	584	14.89
Adult farmer class years	0-9	0	705	18.45
Years farm work prior to age 18	0-6 or more	6 or more	2,708	70.87

*Institutional-on-farm training program for veterans the group had some vocational agriculture training in high school, which appears to have helped them get started in farming; there is great need for the entire group to have an opportunity to continue their education.

Most of the young farmers enrolled in the program at the time this study was made were males. However, there were 14 females enrolled for the small percentage of .37. A total of 53.36 percent of the enrollees said that they were married and 81.79 percent lived on a farm at the time this questionnaire was administered. A considerably smaller percentage of 2.46 lived in the country but not on a farm, with another group making up 3.06 percent living in town. The data showed that 12.69 percent of the participants did not reply to the question of where they then lived.

Table 3, presenting the tenure experiences of the participants in the National Young Farmer Study prior to 1959, indicates quite an uneven distribution of their backgrounds. The group in the partner status was the largest, with 30.23 percent. This appeared to be the commonest way for a young man to get established in farming. The next highest group, in numbers, was in the owner-operated status. This group indicated 4.3 years of experience, on the average, and its members were a little older than the others.

Table 3. Tenure Experience of Participants Prior to the Study

Status	Young Farmers		Years of Experience		Ages	
					Beginning	Ending
	No.*	%	Range	Mean	Mean	Mean
Tenant	787	15.84	1-5 or more	3.8	19	22
Farm wage laborer	822	16.56	1-5 or more	3.7	17	22
Share-cropper	517	10.40	1-5 or more	3.8	20	24
Owner-operator	999	20.11	1-5 or more	4.3	22	26
Partner	1,502	30.23	1-5 or more	3.6	18	25
Other	340	6.84	1-5 or more	4.4	17	22

*Several young farmers had experiences in more than one status.

OBSERVED CHANGES DURING THE TWO YEAR PERIOD

Tenure Status

In the second part of the questionnaire, the participants were asked to check a more detailed tenure status list. They were then asked to check the same list in 1961. It may be observed in table 4 that the largest single group that checked a certain category was that in partnership with parents--26.83 percent of the whole. During the 2-year period that the participants were in the study and enrolled in the classes quite a number of them moved from the status of being a partner with the parent into the owner-operator status. Owner-operator status showed the largest general increase, with the status of owner-operator renting additional land being second, and that of manager of a farm being third.

There were fewer participants when the instrument was administered in 1961 than there had been in 1959. There is no way of knowing the status of those who dropped out of the program and did not complete the 1961 questionnaire. Although comparisons between the two years must be made, certain inferences may be drawn with regard to status and age in years. In the largest status group--the partner with parents--815 of the 1097 participants were in age range of 16 through 25 years. The next largest group--the owner-operator--fell in the age range of 36 to 40. The third largest group was the age group that ranged from 26 to 30 and the fourth largest group ranged in the ages of 31 through 35.

Economic Status

Tables 5 and 6 examine the economic status of the young farmers in 1959 and again in 1961. Table 5 shows that the ranges of indebtedness that were included in the original instrument varied in amounts from group to group and there was no ceiling. This meant that the data could

Table 4. Tenure Status of the Young Farmers

	1959 (N=4089)		1961 (N=2544)		While enrolled in class
Status	No.	%	No.	%	Percent moving to (+) or moving from (-) this status
Owner-operator	707	17.29	667	26.22	+ 8.93
Owner-operator renting additional land	373	9.12	372	14.62	+ 5.50
Partner with parent(s)	1,097	26.83	658	25.86	- 0.97
Partner with others	191	4.67	125	4.91	+ 0.24
Tenant-cash renter	171	4.18	136	5.35	+ 1.17
Tenant-other basis	253	6.19	112	4.40	- 1.79
Sharecropper	218	5.33	119	4.68	- 0.68
Hired manager	31	.76	18	.71	- 0.05
Landlord with tenants operating the farm	13	.32	6	.24	- 0.08
Manager of farm	30	.73	114	4.48	+ 3.75
Farm laborer for wages	203	4.96	17	.67	- 4.29
Non-farm work	39	.95	24	.94	- 0.01
Other	59	1.44	32	1.26	- 0.18
No reply	704	17.23	144	5.66	-11.56

Table 5. Economic Status of the Young Farmers, 1959

Investment	Land		Buildings		Farm machinery and equipment		Livestock		Net Worth	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than $500	388	9.49	996	24.36	481	11.76	902	22.06	332	8.12
$500-$1,499	133	3.25	236	5.77	511	12.50	856	20.93	375	9.17
$1,500-$2,999	146	3.57	212	5.18	559	13.67	545	13.33	343	8.39
$3,000-$4,999	190	4.65	243	5.94	742	18.15	362	8.85	296	7.24
$5,000-$6,999	219	5.36	232	5.67	394	9.64	271	6.63	260	6.36
$7,000-$9,999	205	5.01	227	5.55	296	7.24	253	6.19	515	12.59
$10,000-$14,999	251	6.14	250	6.11	242	5.92	201	4.92	359	8.78
$15,000-$24,999	227	5.55	162	3.96	139	3.40	104	2.54	413	10.10
$25,000-$49,999	130	3.18	5353	1.30	33	.81	29	.71	418	10.22
$50,000-$99,999	39	.95	5	.12	15	.37	6	.14	175	4.28
$100,000 or over	32	.78	16	.39	11	.27	11	.27	45	1.10
No reply	2,129	52.07	1,457	35.65	666	16.27	549	13.43	558	13.65
Median	$6,119.50		$2,099.50		$3,419.50		$1,529.50		$7,929.50	

Table 6. Economic Status of the Young Farmers, 1961

Investment	Land		Buildings		Farm machinery and equipment		Livestock		Net worth	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than $500	270	10.61	259	10.18	205	8.06	360	14.15	67	2.63
$500-$1,499	94	3.69	130	5.11	263	10.34	388	15.25	140	5.50
$1,500-$2,999	112	4.40	155	6.09	329	12.93	369	14.50	165	6.49
$3,000-$4,999	191	7.51	239	9.39	407	16.00	276	10.85	197	7.74
$5,000-$6,999	187	7.35	244	9.59	323	12.69	245	9.63	213	8.37
$7,000-$9,999	230	9.04	238	9.36	308	12.11	253	9.94	188	7.39
$10,000-$14,999	254	9.98	273	10.73	249	9.79	227	8.92	287	11.28
$15,000-$24,999	198	7.78	149	5.86	138	5.42	118	4.64	392	15.41
$25,000-$49,999	151	5.93	75	2.95	36	1.42	41	1.61	413	16.23
$50,000-$99,999	60	2.36	15	.59	4	.16	3	0.12	170	6.68
$100,000 or over	3	.12	-	-	-	-	-	-	4	.16
No reply	794	31.23	767	30.16	282	11.08	264	10.39	308	12.12
Median	$7,269.50		$6,289.50		$6,639.50		$3,199.50		$12,549.50	

not be averaged to obtain a mean; however, by the use of the uneven group interval formula (7) a legitimate median was obtained which in turn gives an authentic measure of variability. The formula used is as follows:

$$\text{median} = 1 + \left(\frac{\frac{N}{2} - fc}{fw} \right) h$$

It may be observed in table 5 that the young farmers who participated in the program when it started had a median investment of $6,119.50 in land, $2,099.50 in buildings, $3,419.50 in farm machinery and equipment, and $1,529.50 in livestock. This group also had a new worth of $7,929.50. As illustrated in table 6, the young farmers who finished the study in 1961 had median investments of $7,269.50 in land, $6,289.50 in buildings, $6,639.50 in farm machinery and equipment, and $3,199.50 in livestock. The 1961 group had a net worth of $12,549.50, which was a considerable increase over the 1959 figures.

The changes in the economic status of the young farmers during the 2-year period are illustrated in table 7. Because some of the men in the study were somewhat older than normal for a young farmer class, the land investment of the group was the highest investment, with farm machinery equipment second highest.

Table 7. Changes in Economic Status of the Young Farmers

Investment	Median 1959	Median 1961	Median Change
Land	$6,119.50	$7,269.50	+ $1,150.00
Buildings	2,099.50	6,289.50	+ 4,190.00
Farm machinery and equipment	3,419.50	6,639.50	+ 3,220.00
Livestock	1,529.50	3,199.50	+ 1,670.00
Net worth	7,929.50	12,549.50	+ 4,620.00

Annual Labor Income

If the instruction received by the participants in a young farmer class is to be of any benefit one would expect the annual labor income to increase. In table 8 the annual labor income data may be observed. The median of the group in 1959 was $2,319.00 as compared to $3,219.20 for the same group in 1961. This gives a median difference of $900.20.

It may also be noted in table 8 that the largest group of participants in 1959 fell in the labor income range of $3,000 to $3,999. In 1961 the largest group of participants were in the same labor income range. There were fewer participants in the lower income brackets and more participants in the middle brackets.

Major Crop Enterprises

In order to secure information regarding major crop enterprises, each participant was asked to check the major enterprise on his farm and the number of acres it involved. The same type of information was again secured in 1961. The results of these findings may be observed in table 9. In 1961 a higher percentage of the total respondents indicated the following as their major enterprises: apples, barley, cabbage, corn grain, cotton, hay-forage, peanuts, rice, soybeans, tobacco, sorghum grain and sweet sorghum, vegetables, wheat, small grains, corn and silage, truck crops. All of the other enterprises were only slightly increased or decreased by drought.

Major Animal Enterprises

Each participant in the study was asked to check his major animal enterprise. Did the young farmers who participated in the study make any changes in their animal enterprises during the two years that the study was conducted? The data presented in table 10 suggest an affirmative answer.

Table 8. Annual Labor Income of the Young Farmers

	1959 (N=4089)		1961 (N=2544)	
Labor Income	No.	%	No.	%
Less than $500	337	8.24	119	4.68
$500 to $999	329	8.05	146	5.74
$1,000 to $1,499	346	8.46	191	7.51
$1,500 to $1,999	345	8.44	185	7.27
$2,000 to $2,499	327	7.99	249	9.79
$2,500 to $2,999	298	7.29	221	8.69
$3,000 to $3,999	413	10.10	430	16.90
$4,000 to $4,999	283	6.92	310	12.19
$5,000 to $5,999	190	4.65	192	7.55
$6,000 to $6,999	100	2.45	140	5.50
$7,000 to $7,999	55	1.35	78	3.07
$8,000 to $9,999	45	1.10	59	2.32
$10,000 to $11,999	34	.83	43	1.69
$12,000 to $14,999	14	..34	26	1.02
$15,000 to $19,999	10	.24	11	.43
$20,000 to $29,999	2	.05	8	.31
$30,000 to $39,999	2	.05	1	.04
$40,000 to $49,999	2	.05	2	.08
$50,000 and over	-	-	-	-
No reply	957	23.40	133	5.22
Median	$2,319.00		$3,219.20	
Median difference in income		$900.20		

Table 9. Major Crop Enterprises of the Young Farmers

Enterprise	1959				1961				1959-61
	Respondents		Acres		Respondents		Acres		Mean differences
	N	Percent total (3203)	Number	Mean number	N	Percent total (1969)	Number	Mean number	added (+) or dropped (-) per respondent (acres)
Apples	13	.41	455	35.00	17	.86	594	34.94	-.06
Barley	9	.28	585	65.00	7	.36	313	44.71	-20.29
Buckwheat	-	-	-	-	-	-	-	-	-
Cabbage	3	.09	87	29.00	3	.15	61	20.33	-8.67
Cantaloupes	1	.03	2	2.00	-	-	-	-	-2.00
Carrots	1	.03	4	4.00	-	-	-	-	-4.00
Celery	1	.03	-	-	-	-	-	-	-
Cherries	-	-	-	-	-	-	-	-	-
Cranberries	-	-	-	-	-	-	-	-	-
Corn-grain	591	18.45	41,028	69.42	408	20.72	31,748	77.81	+8.39
Cotton	339	10.58	12,312	36.32	253	12.85	12,833	50.72	+14.40
Cucumbers	-	-	-	-	1	.05	5	5.00	+5.00
Forest product	11	.34	1,572	142.91	-	-	-	-	-142.91
Grapes	1	.03	20	20.00	-	-	-	-	-20.00
Hay-forage	90	2.81	5,395	59.94	128	6.50	7,554	59.02	-.92
Hay-seed	7	.22	418	59.71	-	-	-	-	-59.71
Oats-hay	1	.03	125	125.00	-	-	-	-	-125.00
Oats-grain	12.	.37	561	46.75	3	.15	95	31.66	-15.09
Onions	-	-	-	-	-	-	-	-	-
Parsnips	-	-	-	-	-	-	-	-	-
Pasture	16	.50	1,769	110.56	-	-	-	-	-110.56
Peaches	5	.16	164	32.80	3	.15	22	7.33	-25.47
Peanuts	82	2.56	3,255	39.69	75	3.81	3,102	41.36	+1.67

Table 9. Major Crop Enterprises of the Young Farmers (Cont'd.)

	1959				1961				1959-61
	Respondents		Acres		Respondents		Acres		
Enterprise	N	Percent total (3203)	Number	Mean number	N	Percent total (1969)	Number	Mean number	Mean differences added (+) or dropped (-) per respondent (acres)
Plums	1	.03	10	10.00	-	-	-	-	-10.00
Potatoes-wh.	24	.74	205	8.54	13	.66	247	19.00	+10.46
Potatoes-sw.	1	.03	8	8.00	3	.15	8	2.67	-5.33
Radishes	1	.03	400	400,00	-	-	-	-	-400.00
Rice	24	.74	1,583	65.96	28	1.42	3,864	138.00	+72.04
Rye	1	.03	5	5.00	1	.03	4	4.00	-1.00
Silage	3	.09	140	46.66	7	.36	415	59.29	+12.63
Sorghum-grain	12	.37	1,666	138.83	17	.86	2,847	167.47	+28.64
Sorghum-sweet	2	.06	16	8.00	4	.20	345	86.25	+78.25
Soybeans	125	3.90	8,357	66.86	92	4.67	7,355	79.95	+13.09
Strawberries	2	.06	8	4.00	-	-	-	-	-4.00
Sugar Beets	22	.69	592	26.91	6	.30	125	20.83	-6.08
Tobacco	595	18.58	2,685	4.51	432	21.94	2,303	5.33	+.82
Tomatoes	38	1.19	890	23.42	22	1.12	297	13.50	-9.92
Vegetables	6	.19	257	42.83	6	.30	64	10.66	-32.17
Watermelons	3	.09	117	39.00	1	.03	30	30.00	-9.00
Wheat	353	11.02	23,314	66.05	228	11.58	14,724	64.58	-1.47
Small Grains	33	1.03	2,938	89.03	22	1.12	1,479	67.23	-21.80
Corn & Silage	5	.16	338	67.60	57	2.89	2,416	42.39	-25.21
Truck Crop	20	.62	455	22.75	63	3.20	1,123	17.83	-4.92
Coffee	18	.56	195	10.83	1	.03	56	56.00	+45.17
Other	40	1.25	1,068	26.73	16	.81	671	41.94	+15.21

There was significant increase in the percentage of participants who named the following as their major animal enterprise on the farm during the two year period: beef cows, dairy cows, broilers-fryers, turkeys for meat, swine-brood sows, swine-pork, hogs and cows. There was a decrease in the percentage of participation as a major enterprise in: beef steers, beef feeder calves, dairy heifers, capons, hens for market eggs, hens for hatching eggs, sheep for wool, and horses.

Production Efficiency

The data on production efficiency expectations (table 11) are quite consistent with the general hypothesis of vocational agriculture instructors and leaders in agricultural education that men who participate in young farmer programs make significant changes in their production output. It must also be recognized that the individual differences in yield could be due to different weather conditions. However, since the differences were quite consistent throughout the range of crops, it seems very unlikely that the weather would be evenly influential throughout the entire area involved in the study. Some of the crops in which the mean differences were increased most significantly were grain sorghum, peanuts, tobacco, and cotton. To verify the information on crop yields, participants in the study were asked the question "Were crop yields normal?" They had the opportunity to answer above normal, normal, below normal, or no reply. In 1959 the distribution of answers were above normal 17.36 percent, normal 39.32 percent, below normal 16.09 percent. In 1961 the participants indicated that the crop yields were as follows: above normal 1.5 percent, normal 53 percent, and below normal 16 percent. In both 1959 and 1961, the major portion of the participants said that their crop yields were normal.

Table 10. Major Animal Enterprise of the Young Farmers

Enterprise	1959				1961				1959-61
	Respondents		Animals & Poultry		Respondents		Animals & Poultry		Mean differences added (+) or dropped (-) per respondent (no animals)
	N	Percent Total (3519)	Number	Mean Number	N	Percent Total (2221)	Number	Mean Number	
Beef cows	665	18.97	34,415	51.75	525	23.64	27,439	52.26	+.51
Beef-steers	71	2.02	3,293	46.38	25	1.13	1,134	45.36	-1.02
Beef-f. calves	37	1.05	1,536	41.51	13	.59	1,428	109.85	+68.34
Dairy cows	1,023	29.07	39,506	38.62	820	36.92	35,873	43.75	+5.13
Dairy, heifers	15	.43	555	37.00	8	.36	220	27.50	-9.50
Poultry -									
Broilers-fryers	25	.71	22,480	899.20	34	1.53	28,609	841.29	-57.91
Capons	4	.11	383	95.75	-	-	-	-	-95.75
Hens for market eggs	46	1.31	35,027	761.46	24	1.08	22,789	949.54	+188.08
Hens for hatching eggs	2	.06	1,998	999.00	-	-	-	-	-999.00
Turkeys for meat	4	.12	3,042	760.50	7	.32	5,535	790.70	+30.20
Turkeys for eggs	-	-	-	-	-	-	-	-	-
Sheep for wool	62	1.76	7,434	119.90	23	1.04	2,258	98.17	-21.73
Sheep-breeders	1	.03	34	34.00	1	.05	23	23.00	-11.00
Swine-brood sows	31	.88	624	20.13	22	.99	1,490	67.73	+47.60
Swine-pork	762	21.65	67,581	88.69	563	25.35	48,257	85.71	-2.98
Hogs & cows	63	1.79	10,131	160.81	104	4.68	24,085	231.59	+70.78
Horses	6	.17	82	13.67	2	.09	22	11.00	-2.67
Other	1	.03	8	8.00	-	-	-	-	-

Table 11. Production Efficiency of the Young Farmers

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		1959				1961				1959-61
				Respondents				Respondents		
Crops	Unit of measure	Range	Mean Number	N	Percent total	Range	Mean Number	N	Percent total	Mean differences
Corn	bu/ac	35-115	57.46	2,932	71.70	35-115	69.72	1,841	72.37	+12.26
Cotton, lint	lbs/ac	200-1100	386.11	1,217	29.76	200-1100	505.87	477	18.75	+119.76
Grain sorghum	lbs/ac	1500-5500	2,367.00	894	21.86	1500-5500	3,045.04	131	5.15	+678.04
Tobacco	lbs/ac	500-2400	1,551.04	1,294	31.65	500-2400	1,902.82	479	18.83	+351.78
Potatoes	bu/ac	100-500	134.85	959	23.45	100-500	152.37	285	11.20	+17.52
Hay	tons/ac	1-5	3.08	2,439	59.65	1-5	3.01	1,477	58.06	-.07
Wheat	bu/ac	15-55	25.16	1,827	44.68	15-55	35.00	907	35.65	+9.84
Oats	bu/ac	35-75	56.96	1,282	31.35	35-75	54.00	1,011	39.74	-2.96
Rye	bu/ac	10-50	28.29	112	2.73	10-50	27.52	84	3.30	-.77
Barley	bu/ac	35-75	38.56	1,179	28.83	35-75	51.24	386	15.17	+12.68
Peanuts	lbs/ac	1000-2600	1,067.78	827	20.22	1000-2600	1,576.89	238	9.36	+509.11
Silage	tons/ac	8-24	10.60	1,463	35.78	8-24	13.43	706	27.75	+2.83

The young farmers were also asked if crop yields were abnormal and if so what the cause was. They had an opportunity to check drought, insect damage, frost, improper cultivation, storm damage, disease, improper management, not applicable, or no reply. The data indicated that the cause of the 17.36 percent abnormal crops in 1959 was drought. The cause of the 1.5 percent abnormal crop yields in 1961 was drought and storm.

Further production efficiency is illustrated in table 12. Means were figured for tables 12 and 13 even though there was no ceiling on the list of ranges. However, the ranges of production units were naturally quite limited in nature and it would be extremely unlikely for the animals to produce over the upper end of the ranges that were indicated; therefore, means can be used quite reliably in this case. In table 12 all of the mean differences indicate that there was an increase in efficiency during the 2-year period of instruction in the young farmer classes, except for the amount of milk per dairy cow. In this individual case the mean of the respondents in 1961 was 219.3 pounds of milk per cow less than it was in 1959.

In the case of average daily gain, as illustrated in table 13, there seemed to be no significant differences that could be attributed to the young farmers' participation in the scheduled classes. Three of the mean differences indicated a slight increase and three showed a slight decrease.

Cash Income

Crops were the major source of income in both 1959 and 1961. Livestock served as the second best source of cash income during both years. According to table 14, 73.61 percent of the total respondents indicated that they received 54 percent of their cash farm income from crops during the year 1959 or at the time of the enrollment in the program, while in

Table 12. Production Per Unit Produced by the Young Farmers

Unit	1959				1961				1959-61
	Range	Mean	Respondents N	Respondents Percent total	Range	Mean	Respondents N	Respondents Percent total	Mean difference
Milk/d. cow	5000-13,000	7138.12	1,962	47.98	5000-13,000	6918.82	1,084	42.61	-219.30
Eggs/hen	100-300	137.76	1,293	31.62	100-300	194.58	456	17.92	+56.82
Calves/beef cow	.7-1.10	.83	1,336	32.67	.7-1.10	.98	514	20.20	+.15
Lambs/ewe	.7-1.5	.74	860	21.03	.7-1.10	.92	141	5.54	+.18
Wool/sheep	2-18	3.28	869	21.25	2.5-18	8.06	149	5.86	+4.78
Pigs weaned/ sow	4-20	7.35	2,038	49.84	4-20	8.77	1,051	41.31	+1.42
Broilers, % raised	54-95	61.35	882	21.57	54-95	89.56	223	8.77	+28.21
Turkey poults, % raised	54-95	54.19	700	17.12	54-95	83.25	40	1.57	+29.06
Bees, honey/ colony (lbs)	50-130	55.01	678	16.58	50-130	72.92	24	.94	+17.91

Table 13. Average Daily Gain Produced by the Young Farmers

	1959				1961				1959-61
			Respondents				Respondents		
Unit	Range	Mean	N	Percent total	Range	Mean	N	Percent total	Mean difference
Fat steers (lbs/day)	1-3	1.46	1,291	31.57	1-3	2.08	576	22.64	+.62
Baby beef (lbs/day)	1-3	1.24	1,079	26.39	1-3	2.04	367	14.43	+.80
Feeder hogs (lbs/day)	1-3	1.65	1,753	42.87	1-3	1.60	943	37.07	-.05
Pig litters (lbs/day)	1-5	2.57	1,409	34.46	1-5	2.23	550	21.62	-.34
Feeder lambs (lbs/day)	.5-2.5	.93	746	18.24	.5-2.24	.88	71	2.79	-.05
Broilers, lb./bird/week	.1-.4	.18	788	19.20	.1-.4	.31	170	6.68	+.13

Table 14. Cash Income by Source

Source	1959				1961				1959-61
			Respondents				Respondents		Mean
	Range %	Mean %	N	Percent total	Range %	Mean %	N	Percent total	difference %
Crops	0-100	54.10	3,010	73.61	0-100	44.65	2,272	89.31	-9.45
Livestock products	0-100	35.09	2,156	52.73	0-100	36.48	2,186	85.93	+1.39
Livestock	0-100	31.83	2,847	69.63	0-100	27.75	2,258	88.76	-4.08
Timber	0-100	42.35	941	23.01	0-100	62.77	1,833	72.05	+20.42
Other	0-100	41.90	1,082	26.46	0-100	97.45	1,880	73.90	+55.55

1961 89.31 percent of the total respondents indicated that they received 44.65 percent of their cash farm income from crops.

Soil Conservation Plan

Participants in the National Young Farmer Study were asked to designate whether they had a soil conservation plan and/or a land capability map made of their farm. They had an opportunity to check yes, no, not applicable, or no reply. In 1959 51.48 percent indicated that they did have a soil conservation plan, compared with 52.16 percent in 1961. This revealed a very slight increase in the use of a soil conservation plan and/or a land capability map.

Farming Agreements

Table 15 shows the type of agreement that the young farmers had and the percentage of participants who had designated agreements. It seems quite significant that over a third of the young farmers were operating with an oral agreement. In 1959 13.51 percent of the participants had a written agreement, whereas in 1961 19.46 percent had a written agreement. This showed an increase of five percent. There was also a definite increase in the number of written agreements that were filed in the court house. In 1959 47.06 percent indicated no agreement whatsoever, compared with 36.44 percent in 1961.

Source of Technical Information

The young farmers were asked to indicate the number of times they had received farming or other technical information from several sources during the past 12 months. The results appear in table 16. In 1959, 3,351 of the 4,089 participants indicated that they received technical information from the vocational agriculture teacher on an average of 12.46 times. A higher percentage of the young farmers received technical information from vocational agriculture instructors than any other source of information. The

Table 15. Farming Agreements of the Young Farmers

Type of agreement	1959 (N=4086)*		1961 (N=2544)		
	Number	Percent	Number	Percent	While enrolled in class % moved to (+) or % moved from (-) this status
Oral	1,497	36.64	1,015	39.90	+3.26
Written	552	13.51	495	19.46	+5.95
Written and filed in courthouse	87	2.13	84	3.30	+1.17
Other	30	.73	23	.90	+.17
None	1,923	47.06	927	36.44	-10.62

* Total less than 4089 as stated on page 29 because of processing error.

Table 16. Sources of Technical Information Used by the Young Farmers

Source	1959				1961			
	Respondents		No. times used*		Respondents		No. times used*	
	(N= 4086)	Percent total	Range	Mean	(N= 2544)	Percent total	Range	Mean
Vocational-agriculture teachers	3,351	81.95	1-40	12.46	2,346	92.30	1-40	9.95
County agricultural agents	2,284	55.86	1-40	6.67	1,596	62.74	1-40	4.68
Soil Conservation Service	1,461	35.73	1-40	4.12	1,350	53.07	1-40	3.90
Power supply representative	905	22.13	1-40	3.30	452	17.77	1-29	3.40
Production credit association	883	21.59	1-40	12.05	445	17.49	1-24	3.87
Nat'l Farm Loan Association	763	18.66	1-40	17.93	123	4.83	1-10	3.49
Farm agents for comm. banks	286	6.99	1-24	4.14	254	9.84	1-24	3.85
Other farm credit agencies	816	19.96	1-29	22.15	188	7.39	1-24	4.10
U.S. & State Forestry Service	279	6.82	1-24	3.27	288	11.32	1-19	3.26
Feed company representative	1,891	46.25	1-40	5.27	1,082	42.53	1-40	6.22
Other commercial representative	597	14.60	1-40	5.75	471	18.51	1-40	5.00

* Over a 12-month period.

next most highly used source of information was the county agricultural agent and third was the feed company representative. The National Farm Loan Association was used more times during the year than any other source, but by a smaller percentage of the group. Those young farmers who checked the composite of other farm credit agencies listed this category as used the most times. In 1961 approximately 92 percent of the young farmers participating in the classes were acquiring technical information from the vocational agriculture teacher. The number of times that they used this source, however, was slightly lower, with 9.95 being the average number of times. Like the 1959 group, the young farmers in 1961 were using the county agricultural agent quite extensively as a source of information. A total of 62.47 percent of the young farmers indicated that they were obtaining information on an average of 4.68 times per year from the county agricultural agent. The source of information that ranked third was the soil conservation service, and the feed company representatives ranked fourth. The feed company representative ranked second in the number of times used during the year, but a larger number of the men were using some of the other sources.

THE YOUNG FARMERS IN THEIR SOCIAL ENVIRONMENT

Cooperative Use of Machinery

As shown in table 17, there was very little difference in the cooperative use of machinery between 1959 and 1961. A few more farmers indicated in 1961 that they were not using machinery cooperatively with other farmers. The same was true for the 1961 group in the cooperative use of items other than machinery. This would imply that the young farmers were a little better established and able to purchase and use machinery without the cooperative help of others.

The young farmers were also then asked to state the number of farmers with whom they owned, rented, or used machinery cooperatively. Investigation of the data disclosed that of those who were using machinery cooperatively in 1959, 17.10 percent were cooperating with one farmer only, 13.78 percent were cooperating with two farmers, and 7.95 percent were cooperating with three farmers. Several did not reply to this question. In 1961, 14.6 percent of the young farmers indicated that they were using machinery cooperatively with one farmer, 14.1 percent were cooperating with two farmers and 7 percent were cooperating with three farmers. In this portion of the questionnaire, data were procured for 4,070 in 1959 and 1,951 in 1961.

Community Attitude

Additional information regarding attitudes toward the school and vocational agriculture program was collected. The young farmers were asked the following question: "How do most of the people you know in this community regard the educational program at the local high school?" Data regarding this question are tabulated in table 18.

In 1959, 89 percent of the young farmers indicated that most of the people in their community were very favorable or fairly favorable toward

Table 17. Cooperative Use of Machinery by the Young Farmers with Other Farmers

Number	Young farmers using machinery		Young farmers using other items	
	1959 (N=4070) Percent	1961 (N=1951) Percent	1959 (N=4070) Percent	1961 (N=1951) Percent
None	22.21	25.78	33.04	45.67
1 piece	7.86	5.79	6.14	6.51
2 "	8.70	9.69	6.01	8.35
3 "	6.86	6.66	3.39	4.61
4 "	4.99	5.64	2.24	2.87
5 "	4.28	3.48	1.89	1.28
6 "	2.95	3.12	1.10	.92
7 "	1.30	1.28	.22	.41
8 "	2.11	2.66	.39	.26
9 or more	12.48	8.56	1.96	1.44
Not applicable	1.45	-	1.97	-
No reply	24.81	27.34	41.65	27.68

Table 18. Community Attitudes Toward the Local High School

Attitudes	Total educational program: 1959 (N=4070)	%	Total educational program: 1961 (N=1951)	%	Vocational-agriculture program: 1959 (N=4070)	%	Vocational-agriculture program: 1961 (N=1951)	%
Very favorable	2,107	51.77	1,228	62.94	2,592	63.69	1,408	72.17
Fairly favorable	1,515	37.22	626	32.09	1,193	29.31	469	24.04
Not so favorable	96	2.36	13	.66	43	1.06	3	.16
Not at all favorable	16	.39	3	.19	-	-	2	.10
Don't know	265	6.51	57	2.92	181	4.44	47	2.41
No reply	71	1.75	24	1.20	61	1.50	22	1.12

the total educational program in the local high school. In 1961 the same group indicated that perhaps the community attitude towards the local high school had improved, since they believed that 95 percent of the community was very favorable or fairly favorable toward the local high school educational program. This would suggest that the young farmers who participated in the program had become better acquainted with the local high school total educational program and in turn had cause the community to become more aware of the entire school program. It also tends to substantiate the hypothesis of many leaders in agricultural education that a sound young farmer and adult farmer program in the community will have a positive influence on the entire community with regard to its attitudes towards the local high school program. The community attitude towards the

Table 19. Acquaintance of Community with Program in Vocational Agriculture

Acquaintance	Over-all Voc.-Ag. Department				Young Farmer Classes			
	1959 (N=4070)	%	1961 (N=1951)	%	1959 (N=4070)	%	1961 (N=1951)	%
Very good	1,015	24.94	843	43.21	960	23.59	779	39.93
Fairly good	2,086	51.25	908	46.54	1,804	44.32	891	45.67
Not so good	612	15.04	111	5.69	812	19.95	185	9.48
Not at all good	67	1.65	9	.46	154	3.78	11	.56
Don't know	245	6.02	54	2.77	269	6.61	64	3.28
No reply	45	1.10	26	1.33	71	1.75	21	1.08

vocational agriculture program was either very favorable or fairly favorable, as reported by 93 percent of the young farmers who were participating in the program in 1959. A similar figure of 96 per cent was indicated by those that were in the program in 1961.

Acquaintance of Community with the Vocation Agriculture Program

According to table 19, the young farmers thought the community was slightly better acquainted with the over-all vocational agriculture department than with the young farmer classes. They felt that in 1961 the community was better acquainted with the over-all vocational-agriculture department than it was in 1959. They also indicated that a great deal more of the community was acquainted with the young farmer classes in 1961 than in 1959. This would imply that when some of the needs of the young farmers in the community are met through the young farmer classes, a part of the over-all vocational agriculture program, the entire community benefits through a better knowledge of the program and of the whole school system.

Off-farm Work

In 1959 nearly 35 percent of the young farmers who were participating in the program were not working off the farm. 26 percent of them indicated that they were working off the farm 1 to 60 days. Another 20.49 percent said that they were working 61 or more days off the farm. The days worked off the farm were to be 8-hour days. The 1959 group also stated that 401 of them, or 9.85 percent, worked no hours off the farm and 207 of them, or 5.08 percent, worked less than 200 hours off the farm. This included those who worked less than 8-hour days. Of the 1961 group, 1.33 percent worked no hours off the farm and 5.54 percent worked less than 200 hours off the farm. More of the participants in the 1961 group did not reply to this question.

When asked to give approximate percentage of cash income derived from off-farm work in the past 12 months, the 1959 group replied that 556 of them were in the 0-9 percent range. In the 10-19 percent of cash income from off-farm work, the data disclosed 233 in the 1959 group and 92 in the 1961 group. A slightly higher percentage of the 1959 group was earning cash income from off-farm work in the 10-19 percent range.

When asked to indicate the total distance traveled to and from off-farm work both groups indicated that a larger portion of them traveled 5 miles or less to off-farm work. However, quite a few traveled 5 to 14 miles.

Questioned as to whether their off-farm work related to farming, 1292 of the 1959 group said yes, 603 said no; in the 1961 group, 556 said yes and 299 said no. When asked the reasons for working off-farm, the major portion of both groups said that it was to increase their income. Several replied that they worked off-farm with custom work to help pay for their machinery. The other reasons were rather insignificant.

Table 20. Level of Living and Communication Items of the Young Farmers

	1959 (N=4070)		1961 (N=1951)	
Items	No.	%	No.	%
Television	3,443	84.59	1,780	91.24
Radio	3,890	95.58	1,887	96.72
Telephone	2,984	73.31	1,382	70.84
Central heating	1,935	47.54	675	16.58
Refrigerator	3,875	95.21	1,901	97.44
Bath (shower or tub)	3,164	77.74	1,508	77.29
Automatic wash machine	2,003	49.21	1,202	61.61
Hot water heater	3,279	80.57	1,564	80.16
Indoor toilet	3,071	75.45	1,471	75.40
Air conditioner, 1 or more rooms	416	10.22	226	5.55
Automobile	3,711	91.18	1,753	89.85
Pickup truck	2,610	64.13	1,339	68.63
Electricity	3,904	95.92	1,882	96.46
Running water	3,535	86.86	1,664	85.29
Food freezer	2,982	73.27	1,464	75.04

The Level of Living

As can be noted in table 20, a very high percentage of both the 1959 and 1961 groups possessed electricity, refrigerators, and radios on the farm. The most significant difference between the two groups appears to be in the larger 1961 ownership of an automatic washing machine. The 1961 group owned a slightly smaller percentage of automobiles and a slightly larger percentage of pickup trucks, which might indicate that they felt it was a wise investment to use the pickup truck for dual purposes. The 1961 group also had a slightly higher percentage of television sets in their homes. There seems to be no explanation for the significantly lower percentage of central heating systems in use by the 1961 group.

Insurance Program

In response to direct questioning whether the young farmers had different types of insurance or not, it was found that a high percentage of them did carry certain types of policies. As shown in table 21, in all cases but one the 1961 group indicated a slightly higher percentage of participation in different types of insurance. The 1961 group showed a smaller portion of the group holding personal liability insurance.

Homestead Improvement

Young farmers in the study were asked to indicate whether work was done to improve the interior of the home. They had the opportunity to check much, some, little, not applicable (none), or no reply. They could also make the same ranking or checking of other homestead improvement activities such as exterior of the home, interior of farm buildings, exterior of farm buildings, lendscaping of the home, and general appearance of farmstead. In tables 22 and 23 the tabulations for the homestead improvement activities are shown. Since an evaluation of factor which is noted at the

Table 21. Insurance Program of the Young Farmers

	1959 (N=4070)		1961 (N=1951)	
Type	No.	%	No.	%
Life	3,317	81.50	1,628	83.44
Auto liability	3,652	89.73	1,785	91.49
Personal liability besides auto	1,659	40.76	693	35.52
Accident	2,272	55.82	1,097	56.23
Hospitalization	2,415	59.34	1,305	66.89
Education	310	7.62	163	8.35
Burial	1,212	29.78	686	35.16

Table 22. Homestead Improvement Activities of the Young Farmers, 1959

(N=4070; in order of emphasis)

Activity	No.	%	Evaluative Factor* No. (Mean)
General appearance of farmstead	3,315	81.45	1.83
Interior of home	3,286	80.74	1.82
Exterior of home	3,139	77.13	1.72
Interior of farm buildings	3,132	76.95	1.72
Exterior of farm buildings	3,108	76.36	1.71
Landscaping of home	2,622	64.42	1.52

*	Value
Much work done to improve:	3
Some work done to improve:	2
Little work done to improve:	1

Table 23. Homestead Improvement Activities of the Young Farmers, 1961
(N=1951; in order of emphasis)

Activity	No.	%	Evaluation Factor* No. (Mean)
Interior of home	1,804	92.46	1.99
General appearance of farmstead	1,787	91.59	1.95
Exterior of home	1,787	91.59	1.86
Exterior of farm buildings	1,741	89.24	1.77
Interior of farm buildings	1,731	88.72	1.75
Landscaping of home	1,673	85.75	1.70

*	Value
Much work done to improve:	3
Some work done to improve:	2
Little work done to improve:	1

bottom of each table was used, the improvement activities were ranked for the years 1959 and 1961, respectively. After 2 years of instruction in the young farmer class, the group indicated that they were doing more with the interior of their homes than they were with the general appearance of their farmsteads. Therefore, the ranking of these two items was reversed. Likewise, the 1961 group switched to other activities--namely, improvement of the exterior of the farm buildings, which ranked ahead of work on the interior. In both cases landscaping of the home was at the bottom of the list.

Source of Information

Table 24 shows how often the young farmers listened to farm news, farm market reports and general news reports on radio and television. In general, both groups used the radio more regularly than the television for

Table 24. Sources of Information for Young Farmers

Sources	1959 (N=4070)				1961 (N=1951)			
	Regularly		Occasionally		Regularly		Occasionally	
	No.	%	No.	%	No.	%	No.	%
Farm news								
Radio	1,749	42.97	1,946	47.81	924	47.36	899	46.07
Television	1,149	28.23	1,885	46.31	673	34.50	926	47.46
Farm markets								
Radio	1,679	41.25	1,873	46.02	845	43.31	923	47.31
Television	916	22.51	1,870	45.95	588	30.14	939	48.13
General news								
Radio	2,131	52.36	1,442	35.42	1,063	54.48	710	36.39
Television	1,922	47.22	1,401	34.42	1,034	53.00	700	35.88
Daily newspaper	2,716	66.73	967	23.76	1,310	67.15	523	26.81
Nat'l news mag.	873	21.44	1,567	38.50	388	19.89	968	49.62
Nat'l farm mag.	2,414	59.31	1,020	25.06	934	47.87	737	37.78
State farm mag.	1,818	44.67	1,132	27.81	816	41.82	739	37.88
State agri. ext. service bulletins	1,238	30.42	1,938	47.62	596	30.55	1,106	56.69
Weekly newspaper	2,097	51.52	934	22.95	1,128	57.82	471	24.14
Reg'nl. farm mag.	1,555	38.21	1,174	28.84	620	31.78	803	41.16
Books on agri. or related subjects	722	17.74	2,201	54.08	296	15.17	1,248	63.97
Other books	414	10.17	2,156	52.97	160	8.20	1,223	62.69
State agri. exp. station bulletins	936	23.00	2,062	50.66	494	25.32	1,188	60.89
Other	12	.29	337	8.28	-	-	3	.15

farm news and for farm markets. For general news, however, there was not a great deal of difference in the regular use of the radio and of the television. Also, in both years the daily newspaper was the news medium used most frequently, on a regular basis, of all those listed in the table. The national farm magazine ranked quite well with the weekly newspaper, whick apparently was well read by the young farmers in this study.

THE PILOT CENTERS

The School Programs in the Pilot Centers

The American Vocational Association committee which designed the National Young Farmer Study was interested in observing changes which took place in the school programs in the pilot centers over the two year study period.

In 1959 and again in 1961, the teachers listed the number of students enrolled in vocational agriculture as a part of the total school program. The results may be observed in table 25.

The average increase in class size in vocational agriculture between 1959 and 1961 was 6.69 students for grade 9, 2.86 students for grade 10, 3.83 students for grade 11 and 10.8 students for grade 12.

Table 25. Enrollment in Day School Vocational Agriculture

	1959			1961		
Grade	Students	Departments		Students	Departments	
	Average	No.	%	Average	No.	%
9 th	17.53	250	(92.94)*	24.22	197	(89.95)**
10 th	16.33	251	(93.31)*	19.19	200	(91.32)**
11 th	12.30	253	(94.05)*	16.13	201	(91.78)**
12 th	9.50	235	(87.36)*	20.30	208	(94.98)**

* Percentage of 270 who responded to this question in 1959.

** Percentage of 219 who responded to this question in 1961.

The teachers were also asked to indicate what hours were available for out-of-school work during the normal school day. In 1959 there was an average of 1.6 hours and in 1961 an average of 1.7 hours. In 1961, 28.43 percent (the mode group) of the instructors replied that they had 3 hours per day available during the afternoon for out-of-school activities in vocational agriculture. This was an increase of 1 hour per day over the mode group reply in 1959.

In 1959, 33.19 percent of the instructors indicated that their time available for out-of-school work was 36.25 percent, with this time designated for young farmer work. In 1961, 49.74 percent of the instructors indicated that their time available for out-of-school work was prorated, with 64 percent of it designated for young farmer work.

The instructors were asked to describe their other school duties such as teaching other classes, supervising study hall, and similar activities. A comparison of the replies of 1959 and 1961 indicated little or no change in the status of the teachers during this time. The teachers who responded that such duties were a part of their schedule spent an average of slightly more than 45 minutes each day on these duties. There was a decrease over the 2-year period in the number of teachers who listed other school duties not associated with vocational agriculture. In 1959, 55 percent of the teachers were assigned 1.49 duties on the average. In 1961, 43 percent of the teachers were assigned, on the average, 1.34 duties not associated with agriculture.

The Out-of-School Programs in the Pilot Centers

Comparisons were made in the out-of-school programs of 1959 and 1961 in the pilot centers. In 1959 the pilot centers were offering an average of 1.12 young farmer classes and 1.32 adult farmer classes. In 1961 the

Table 26. Enrollment in Out-of-School Vocational Agriculture

Students Enrolled	1959				1961			
	Number of Schools				Number of Schools			
	Adult		Young Farmer		Adult		Young Farmer	
	No.	% *	No.	% *	No.	% *	No.	% *
9 or less	5	(3.07)	17	(7.23)	4	(3.30)	16	(7.84)
10 to 14	31	(19.02)	74	(31.49)	18	(14.88)	65	(31.87)
15 to 19	30	(18.40)	51	(21.71)	15	(12.40)	36	(17.65)
20 to 24	22	(13.50)	38	(16.17)	16	(13.22)	28	(13.73)
25 to 29	12	(7.36)	17	(7.23)	9	(7.43)	18	(8.82)
30 to 34	10	(6.13)	10	(4.26)	7	(5.79)	12	(5.88)
35 to 39	8	(4.91)	11	(4.68)	6	(4.96)	10	(2.94)
40 to 44	7	(4.29)	4	(1.70)	3	(2.48)	6	(2.94)
45 to 49	5	(3.07)	4	(1.70)	8	(6.61)	6	(2.94)
50 or more	33	(20.25)	9	(3.83)	35	(28.93)	7	(3.43)

* Percentage of the total number of the schools indicating they held classes. N for 1959 = 270, N for 1961 = 219.

pilot centers were offering an average of 1.15 young farmer classes and 1.37 adult farmer classes.

The enrollment in the classes for the two years may be observed in table 26, which shows that the mode group for both years in the adult class attendance was 50 or more students, this trend being increased in 1961 over 1959. The mode group for the young farmer class showed attendance of from

10 to 14 students enrolled. A small percentage of the young farmer classes had enrollments of 50 or more.

The Teachers' Experience and Salary Paid for Out-of-School Classes

The teachers of the pilot centers indicated that they had taught young farmer classes an average of 7 years and adult farmer classes an average of 10.47 years. The mode group (40.91 percent) for the experience of the teachers with young farmer classes was from 1 to 4 years.

There was no major change during the 2-year test period in the factors relating to teachers' salaries for young farmer work. In both replies, before and after the study, 50 percent indicated that they received a base salary for all-day teaching plus extra for teaching young and/or adult farmer classes. Approximately 30 percent of the teachers replied that they received the same salary whether or not they taught such classes. In 1959, 9.52 percent of the teachers indicated that young or adult farmer classes were required without exception. In 1961 the percentage indicating this requirement was 10.64. There was a slight trend noted toward adjustment of teacher load to compensate for these responsibilities. In 1959, .79 percent of the teachers indicated that their teaching loads were adjusted to allow for young and/or adult farmer classes. In 1961 the percentage indicating adjustment was 2.65 percent.

The Multiple-Teacher Departments

In 62 percent of the pilot centers only one teacher was designated as the teacher of vocational agriculture. In 32 percent of the centers there were two teachers of vocational agriculture. One department had four teachers of vocational agriculture.

The teachers who participated in the study and who were a part of a multiple-teacher department were asked to check the duties for which they

Table 27. Duties of the Teachers in Multiple-Teacher Departments

Duties	1959 Percent of teachers	1961 Percent of teachers
High school classes	82.61	76.00
Supervising high school farming programs	85.87	93.13
Young farmers	88.04	96.00
Adult farmers	45.45	56.00
Farm mechanics	72.53	78.02
Future Farmers of America	78.26	81.08
Other duties	26.37	32.43

had some responsibility during the preceding year. In 1959, 92 teachers who were teaching in multiple-teacher departments responded, and in 1961 the number was 75. This does not indicate fewer multiple-teacher departments, but rather those who failed to respond to the second phase of the study. Table 27 records the responses of the teachers in multiple-teacher departments.

The teachers indicated a trend toward the use of specialized teachers for out-of-school programs. The teachers' replies in this table also showed an increased assignment of duties in all areas except high school classes.

Views of the Teachers Concerning Young Farmer Education

In 1959 and again in 1961, the teachers were asked to evaluate their own attitudes toward the young farmer program and its relationship to the vocational agriculture situation in their own community. Their responses may be observed in table 28, which represents the opinions of 270 teachers

Table 28. Opinions of the Teachers Concerning the Young Farmer Programs

Opinions	Percent of teachers	
	1959	1961
Every teacher should have at least one young farmer class	72.59	64.84
The teacher should conduct a young farmer class only if he is especially interested.	.11	.15
Teacher should have a class only if State policy requires it.	.02	0.00
Teacher should have a young farmer class only if local school administration requires it.	.02	0.00
There is no longer a need for a young farmer program.	.03	.01
There should be at least 10 class meetings of not less than 2 hours each per year.	46.30	42.47
Number and length of meetings should depend on wishes of class members.	60.37	57.53
Other opinions	18.15	23.29

in 1959 and 219 teachers in 1961. A majority felt that every teacher should have at least one young farmer class and that the classes should be designed to meet the needs of the students enrolled.

Approximately 75 percent of the teachers participating in the study indicated that they had had a college course dealing with young and/or adult farmer education.

Summary

The following observations were noted concerning the pilot centers where the young farmer classes were studied between 1959 and 1961:

1. Enrollments in day school vocational agriculture increased.
2. Time available to the teachers for out-of-school instruction increased, with more time designated for young farmer work.
3. There was from "no change" to a "decrease" in the number of teachers who were assigned duties not associated with vocational agriculture.
4. The size of the out-of-school offerings in number of classes remained the same or increased slightly.
5. The enrollment in adult classes increased during the study period.
6. The enrollment in adult classes was larger than that of the young farmer classes.
7. There was no significant increase in the enrollment in the young farmer classes.
8. The teachers of out-of-school programs had taught adult classes longer than young farmer classes.
9. The teachers received the same basic salary whether or not they taught out-of-school programs.
10. There was a slight trend toward requiring out-of-school programs and a trend toward the adjustment of teacher loads to compensate for it.
11. An increased number of teachers were assigned duties in vocational agriculture which did not include the teaching of high school classes.
12. A trend toward specialization in the teaching of vocational agriculture was noted.
13. A majority of the teachers felt that every teacher of vocational agriculture should teach young farmers.
14. There was no change of opinions among the teachers concerning young farmer programs during the test period.

THE YOUNG FARMER CLASSES

General Information About the Young Farmer Classes

Information was gathered in the study concerning the background and nature of the young farmer programs. In the pilot center studied, the young farmer programs had been in operation an average of 7.83 years. Of the 221 instructors, 36 did not respond to the question. Two indicated that the program was new in the community at the time the study began, and two indicated that the program had been in operation for 30 years. Thirty instructors (the mode group) indicated that young farmer classes had been in operation 5 years.

The most popular month for the classes to start was July, with 33.51 percent of the classes holding their first class meeting of the year in that month. In no case did the teachers indicate that classes started in April and May. For the months of March, June, and December there were two teachers for each month who indicated this as the beginning class session. September, October, and November were the second most popular choices for the first class, with approximately 44 percent of the teachers selecting one of these three months. Choice between these three months was evenly divided.

After the classes were started, 39.90 percent of the instructors indicated that the classes were held at least once each month throughout the period of the study. Those who missed one month after the beginning of classes made up 10.63 percent of the total, 8.51 percent missed 4 months during the 2 years, the remaining 41 percent of the teachers being almost evenly distributed between the answers of 2, 3, 5, 6, 7 or 8 or more months being missed in the 2-year test period. The number of class periods held during the 2-year study is shown in table 29.

Table 29. Young Farmer Class Periods, 1959-61

Number of class meetings	Percent of centers
Less than 10	15.21
10 to 14	3.69
15 to 19	6.91
20 to 24	16.13
25 to 29	13.82
30 to 34	14.75
35 to 39	8.76
40 to 44	9.68
45 to 49	6.45
50 to 54	4.60
55 and more	0.0

The data recorded in table 29 illustrates the variation in number of class meetings. Nearly one-half (44.7 percent) of the centers held between 20 to 35 class meetings, with three-fourths (74.19 percent) holding 20 or more classes.

The instructors were asked also to list the lowest number in attendance at any one class meeting. A low attendance of from 1 to 3 students was indicated by 27.01 percent of the teachers, 4 to 6 by 33.18 percent, 7 to 9 by 24.17 percent, and 10 to 15 by 14.22 percent. One instructor indicated that his lowest attendance was more than 32 young farmers.

A highest attendance record of 12 or less was shown by 37.02 percent of the teachers, between 13 and 15 by 22.1 percent, between 16 and 18 by 14.34 percent, and between 19 and 24 by 13.26 percent. None of the teachers indicated that more than 40 attended any one class meeting.

The average attendance for all classes during the 2-year test period was 12.21 students for the 179 (83.65 percent) instructors who answered this question. The range for the average was from 3 students on the average to 44. The most frequently given average attendance was 9 students given by 26 of the instructors.

The teachers of the pilot centers were asked to indicate where the classes were held. The data are presented in table 30, which shows that the local school building was the most popular place for the classes to be held. The classes were not, however, limited to the local school and the data revealed that considerable variety of activity in instruction took place.

Table 30. Where the Classes Were Held

Number of meetings	Local School		On Farm		Community Centers		Business Houses	
	No.	%	No.	%	No.	%	No.	%
None	1	.46	107	48.42	143	65.29	160	59.93
1 - 2	0	0.0	46	20.81	29	13.24	54	20.22
3 - 4	0	0.0	13	5.88	14	6.39	19	7.12
5 - 6	1	.46	12	5.43	4	1.83	4	1.50
7 - 8	2	.91	9	4.07	1	.46	3	1.12
9 - 10	2	.91	4	1.81	0	0.0	0	0.0
11 - 12	4	1.83	3	1.36	0	0.0	0	0.0
13 - 14	3	1.37	0	0.0	0	.46	0	0.0
15 - 16	3	1.37	0	0.0	0	0.0	0	0.0
17 & more	102	46.58	0	0.0	0	0.0	0	0.0
All	72	32.88	0	0.0	0	0.0	0	0.0
No reply	29	13.23	27	12.22	27	12.33	27	10.11

2

Table 31. Areas of Study for the Young Farmer Classes

Percent of meetings	Leadership training		Livestock programs		Farm management		Field crops		Soils management		Farm mechanics		Social events	
	No.	%*	No.	%*	No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
0 - 9	177	80.83	66	29.20	35	15.92	81	36.82	134	60.91	62	28.44	173	79.00
10 - 19	11	5.02	53	23.45	36	16.36	52	23.64	48	21.82	31	14.22	13	5.94
20 -229	0	0.0	29	12.83	51	23.18	40	18.18	8	3.64	27	12.39	4	1.82
30 - 39	2	.91	22	9.73	28	12.73	12	5.45	2	.91	32	14.69	1	.45
40 - 49	2	.91	11	4.87	18	8.18	4	1.82	0	0.0	14	6.41	0	0.0
50 - 59	0	0.0	8	3.54	17	7.73	2	.91	0	0.0	9	4.13	0	0.0
60 - 69	0	0.0	2	.88	4	1.82	1	.45	0	0.0	9	4.13	0	0.0
70 - 79	0	0.0	7	3.10	2	.91	0	0.0	0	0.0	2	.92	0	0.0
80 - 89	0	0.0	1	.44	1	.45	0	0.0	0	0.0	2	.92	0	0.0
90 - 99	0	0.0	0	0.0	1	.45	0	0.0	0	0.0	2	.92	0	0.0
100	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No reply	27	12.33	27	11.96	27	12.27	28	12.73	28	12.72	28	12.83	28	12.79

* Percent of the teachers reporting.

The Areas of Study in the Young Farmer Classes

The teachers were asked to categorize their lessons in eight broad areas for the purpose of reporting the nature of the topics discussed and studied in the young farmer classes. The study topics reported by the teachers may be seen in table 31.

It was apparent from the data furnished by the teachers that in no case were 100 percent of the meetings devoted to one topic. Farm management, farm mechanics, and livestock programs were emphasized in the greater percentage of the classes.

A rationality index was administered by the teachers in the pilot centers to each young farmer enrolled, by means of a personal interview. The teacher asked each question as it was started on the index form, the young farmer was allowed to answer in his own words without the benefit of leading questions, and the teacher then decided which of the listed answers best fitted the answer given. The test was given at the beginning of the 2-year period and again at the end.

A key was used to assign a numerical value to the responses given by the young farmers. A comparison of the scores of 1959 and those of 1961 are recorded in table 32. Examination of the table will reveal a substantial increase in the "3" scores (the most favorable reply) and a decrease in the "1" scores (the least favorable reply) between 1959 and 1961. The score of "y" was given when the answer did not apply.

The Use of Essential Farming Practices

Each teacher in the pilot center was asked to interview each young farmer class member at the beginning of the experiment and again at the close to determine to what extent the young farmers enrolled were using the farming practices considered essential for success. There was no

Table 32. The Rationality Index

Number of scores	Number of Young Farmers Giving: "3" Scores				"2" Scores				"1" Scores				"Y" Scores			
	1959		1961		1959		1961		1959		1961		1959		1961	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
None	231	6.89	21	.82	588	17.66	462	18.05	1801	54.09	1785	69.75	2884	86.61	2250	87.92
One	42	1.26	11	.43	733	22.01	606	23.68	920	27.63	554	21.65	291	8.74	191	7.46
Two	299	2.95	33	1.29	881	26.46	710	27.76	383	11.50	141	5.51	71	2.13	38	1.48
Three	191	5.70	74	2.89	707	21.23	463	18.09	143	4.29	43	1.68	29	.87	27	1.06
Four	316	9.43	212	8.28	312	9.37	226	8.83	42	1.26	19	.74	24	.72	28	1.09
Five	469	13.99	299	11.68	94	2.82	72	2.81	23	.69	4	.16	5	.15	4	.16
Six	642	19.15	471	18.41	8	.24	6	.23	9	.27	2	.08	2	.06	1	.04
Seven	634	18.91	633	24.74	3	.09	2	.08	4	.12	0	0.0	1	.03	0	0.0
Eight	415	12.38	446	17.43	0	0.0	1	.04	2	.06	0	0.0	0	0.0	3	.12
Nine	204	6.09	308	12.04	1	.03	0	0.0	0	0.0	0	0.0	5	.15	2	.08
Ten & over	97	2.89	40	1.56	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No reply	12	.36	11	.43	3	.09	11	.43	3	.09	11	.43	18	.54	15	.59

Note: 1959, N = 3330; 1961, N = 2559.

single list that would be equally applicable to every community in the United States; therefore, each teacher, working with his state project leader, was asked to prepare a list of 10 practices considered to be essential for farming success in his community. The practices could include the areas of livestock production, crop production, marketing, conservation, and farm mechanics. The list could be divided equally among the five areas or concentrate on only one or two. The decision was to be based upon a knowledge of the essential farming practices of the individual community concerned. The list was not to include essential practices which were at the time long established ones such as the use of hybrid seed.

After the list was prepared, the young farmer class members were interviewed in 1959 and again in 1961, using the same list each time. During the interview each young farmer was asked to describe how he carried out the practice listed. The teacher, after listening to his answer, rated each young farmer on his performance of that practice by checking a column (provided in Schedule Z, part B), that in his opinion fitted the best. The teacher was asked to take into consideration the community, the farm, the practice, and the various ways it could be carried out correctly on the farm operated by the young farmer. The teacher was to consider that there could possibly be several ways of carrying out a practice correctly and that no single way was necessarily right. The overall purpose of the interview was to determine how well the young farmer was performing the practice in his particular situation. The results of the interviews by the teachers in 1959 and 1961 are shown in tables 33 and 34.

Tables 33 and 34 compare the performance of the two groups in the excellent and very satisfactory ratings applied to the farming practices as by a formula. The formula used is given on the following page.

Table 33. Farming Practices Used, 1959

(N=3330)

Number of practices	Number of farmers ranked by the teachers as:					
	Excellent		Very Satisfactory		Satisfactory	
	No.	%	No.	%	No.	%
None	2340	70.28	1104	33.15	434	13.03
One	376	11.29	470	14.12	234	7.03
Two	218	6.55	391	11.74	341	10.25
Three	133	3.99	366	10.99	428	12.85
Four	96	2.88	330	9.91	429	12.88
Five	78	2.34	282	8.47	451	13.54
Six	35	1.05	181	5.44	409	12.28
Seven	22	.66	108	3.24	283	8.50
Eight	16	.48	58	1.74	174	5.23
Nine	4	.12	28	.84	92	2.76
Ten	9	.27	9	.27	52	1.56
No reply	3	.09	3	.09	3	.09

The formula used was as follows: a x b x c = factor number for comparison.

a = number of practices
b = number 4 for a very satisfactory rating, or,
number 5 for an excellent rating
c = percent of farmers receiving the rating for
the number of practices

By using this formula, a factor number lf 1321.09 was obtained for the 1959 group, and a factor number of 2092.13 for the 1961 group.

The Organization and Operations of the Program

At the close of the 2-year study the teachers of the young farmer classes were asked to give information regarding the inner structure of the classes and also regarding methods used and outcomes obtained.

Table 34. Farming Practices Used, 1961

(N=2559)

Number of practices	Number of farmers ranked by the teachers as: Excellent		Very Satisfactory		Satisfactory	
	No.	%	No.	%	No.	%
None	1286	50.25	369	14.42	395	15.44
One	334	13.05	267	10.43	261	10.20
Two	239	9.35	340	13.30	302	11.80
Three	161	6.29	367	14.34	312	12.19
Four	127	4.96	353	13.79	293	11.45
Five	115	4.49	285	11.14	268	10.47
Six	85	3.32	223	8.71	254	9.93
Seven	62	2.42	132	5.16	158	6.17
Eight	30	1.17	80	3.13	117	4.57
Nine	26	1.02	40	1.56	67	2.62
Ten	20	.79	24	.94	55	2.15
No reply	74	2.89	79	3.08	77	3.01

The average number of young farmers enrolled in class in each center during the study period was 20.17. The range was from 5 students to 99. The class was a new class in 60 of the school (26%) and a continuing class in 169 of the schools (74%).

The teachers were asked to list the sources used in getting names of prospective young farmers for their classes and to rank the sources according to effectiveness. The results are shown in table 35. Surveying the community was given the highest rank and evaluation score by the largest percentage of the teachers.

Table 35. Methods Used in Obtaining Names of Prospective Young Farmers

Source	Teachers Using		Evaluation made by teachers			
			Rank 1	Rank 2	Rank 3	Evaluation Score*
	No.	%	No.	No.	No.	
Records in principal's office	64	12.78	11	21	33	108
Survey of community	170	33.93	91	50	19	392
Farm organizations	73	14.57	6	32	36	118
Other key groups	67	13.37	3	25	31	90
Others	127	25.35	86	41	11	351

* Rank of 1 = 3
Rank of 2 = 2
Rank of 3 = 1

The recruitment methods of the pilot centers were also studies. The methods used by the teachers of young farmers were tabulated and placed in table 36. The information in this table indicates that the teachers regarded the method of personal contact most valuable, with the use of key individuals second, mail notices third, and written notices fourth.

Various class interactions were studied in the pilot centers. The teachers were asked to respond to a questionnaire listing various types of class organization and interaction arragnements. The results were compiled in table 37 on page 62. The largest number of classes were formally organized, with elected officers and functioning committees.

Table 36. Methods of Recruitment Used by Teachers

Method	Teachers Using		Evaluation made by teachers			
			Rank 1	Rank 2	Rank 3	Evaluation Score*
	No.	%	No.	No.	No.	
Personal contact	220	20.22	187	47	40	695
Written notices	142	13.05	5	42	33	132
Key individuals	144	13.24	10	65	21	181
Farm organizations	55	5.06	1	11	16	41
Other organizations	32	2.94	2	0	5	11
Radio and TV announcements	32	2.94	0	2	6	10
Telephone calls	105	9.65	0	21	33	75
Responsibility by others	48	4.41	0	11	26	48
Mail notices	97	8.92	15	26	41	138
Newspaper notices	100	9.19	3	3	20	35
Advisory council	92	8.46	9	10	12	59
Others	21	1.92	7	9	5	44

* Rank of 1 = 3
Rank of 2 = 2
Rank of 3 = 1

Table 37. Organizational Patterns of the Young Farmer Classes

Activity	Extent Used by the Young Farmer Classes	
	Number	Percent
Class formally organized with elected officers and functioning committees	88	37.93
Class formally organized with officers only	49	21.12
Class leaders designated with no formal election of officers or committees	45	19.40
Class not formally organized	48	20.69
Other class organization	2	.86
Class had officer-conducted business meetings:		
At all instructional meetings	32	14.68
At most instructional meetings	41	18.81
At some instructional meetings	50	22.94
At separate time from instructional meeting	33	15.14
Class did not have officer-conducted business meeting	55	25.23
Another plan used for officer-conducted business meetings	7	3.20

The teachers were asked about responsibilities for planning the instructional program and the relationship between the young farmers and their teacher in the program planning.

A study of table 38 reveals that the young farmers had a definite part in the planning of their instructional experiences, with the teacher playing the role of advisor and counselor to the group.

Table 38. Responsibilities for the Instructional Program

How the decisions were made	Number of schools	Percent of schools
Teacher made all the decisions	2	.88
Teacher made decisions after consulting the class members	39	17.18
Teacher made minor decisions and class members made major decisions	50	22.02
Teacher made minor decisions with the officers and executive committee making major ones	41	18.06
All decisions made by class with the guidance of the teacher, officers, committees	84	37.01
Other plan used	11	4.85

The instructors were asked to list and evaluate the teaching methods used with the young farmer classes. The results are listed in table 39. The instructors felt that the group discussion with the teacher leader was most effective (evaluation score 385). Next in order were instructor lecture discussion (score 239), farm shop work (score 180), field trips (score 162) and illustrated lectures (score 142). The pure instructor lecture was rated as the least effective method (score 40).

Information was also sought concerning who had major responsibility for teaching the pilot center classes. The responses of the teachers are listed in table 40.

The teachers indicated that some of the classes were conducted by the young farmers themselves. Fifty percent of the pilot centers used

Table 39. Methods of Teaching Used

(N=229)

Methods	Teachers using		Teachers' Rank			
			Rank 1	Rank 2	Rank 3	
	No.	%	No.	No.	No.	Evaluation score *
Instructor lecture	57	24.89	8	5	6	40
Instructor lecture discussion	142	82.01	55	28	18	239
Group discussion teacher leader	161	70.31	104	28	17	385
Field trips	130	56.77	24	29	32	162
Farm shop work	135	58.95	31	24	39	180
Laboratory work	44	19.21	11	5	3	46
Illustrated lectures	124	54.15	23	23	27	142
Farmer conducted class	56	24.45	18	2	5	63
Demonstration	109	47.60	21	19	11	112
Other methods	202	88.21	16	6	4	64

* Rank of 1 = 3
Rank of 2 = 2
Rank of 3 = 1

this plan, with the young farmers conducting on the average seven classes (6.97). The range for this activity was from one class per center to 45 classes per center.

In table 41 is recorded the type of instruction given by the young farmers.

The survey included the special teaching materials and visual aids used by the teachers in the young farmer classes. The responses given by the teachers were listed in table 42.

Table 40. Responsibility for Teaching the Classes

(N=210 centers)

Techniques	Number of meetings	
	Range	Mean
Teacher taught entire lesson	0 - 82	11.53
Teacher taught part but not all of lesson	0 - 90	4.96
Teacher only presided for guest speaker	0 - 70	3.91
Teacher not present -- others taught	0 - 90	1.08
Other methods used	0 - 10	.61

Table 41. Type of Instruction Given by the Young Farmer Class Members

(N=219 centers reporting)

Type conducted	Number of centers reporting activity
Field trips	49
Tours	36
Panels	53
Consultant in class	26
Other activities	28

Most widely used were bulletins (land grant college and United States Department of Agriculture bulletins), motion picture, and teacher-made charts.

Table 42. Special Teaching Materials Used in Teaching Young Farmers

(N=222 centers reporting)

Materials	Number of class meetings per center *	
	Range	Mean
Motion pictures	0 - 50	3.87
Slides	0 - 40	3.40
Opaque projector	0 - 90	1.35
Teacher-made charts	0 - 50	3.87
Ready-made charts	0 - 60	2.48
Specimens	0 - 22	2.36
Books	0 - 60	3.11
Live exhibits	0 - 24	2.22
Bulletins	0 - 48	4.80
Magazines	0 - 30	2.40

A question was also asked pertaining to the number of wives who were not regularly enrolled in the young farmer classes but who attended for certain topics of interest to both the young farmer and his wife. One hundred twelve teachers in the pilot centers indicated that there were no wives in attendance while 36 indicated that there were two meeting when the wives attended. The average number of meetings where wives were in attendance was 1.19 of the 228 pilot centers reporting.

The National Young Farmer Study surveyed the pattern of farm calls made to the young farmers by the teachers. The results of this part of the study are recorded in table 43. No definite pattern of making farm

Table 43. On-The-Farm Instruction Given to the Young Farmers

When farm calls were made	Median number per center
July	7
August	7
September	6
October	6
November	5
December	5
January	6
February	6
March	6
April	5
May	7
June	9

Frequency of farm calls per year	Median number of farmers
Once	1
Twice	2
Three times	2
Four times	2
Five times	1
Six times	0
Seven times	0
Eight times	0
More than eight times	0
None	0

Length of farm call	Median of percentages
One-half hour	1 - 10
One hour	21 - 30
One and one-half	11 - 20
Two hours	1 - 10
Two and one-half	0

calls could be observed. May, June, July and August seemed to be slightly more popular for making farm calls, with 2 to 4 calls made on the average, each lasting about 1 hour.

One of the survey forms (Schedule Y, Part B) sought answers to questions pertaining to the special activities of the young farmer classes designed to meet the special interests of the class members. The reporting of the special activities is shown in table 44.

Table 44. Special Activities of the Young Farmer Classes

Activity	Number of schools
Recognition ceremony	
Certificate	30
Dinner	31
Completion ceremony	4
Other like activities	12
Social and/or recreational activities during the meetings	
All meetings	34
Most meetings	44
Some meetings	94
None of the meetings	43

Social activities in addition to the regular class meetings were held in the majority of the pilot centers, 93 (25.83 percent) of the pilot centers reporting no social activities. The median number of social activities reported by those classes scheduling them was 1 or 2 activities per year with 2 centers reporting as many as 8 social activities.

Recreational activities in addition to the regular class meetings were somewhat less popular, with 55 percent of the centers not scheduling special recreational meetings. The 45 percent which did schedule such activities usually scheduled only 1 or 2 such events. One department scheduled 9 or 10 such activities.

The teachers were asked to evaluate the special activities held along with or in addition to the classes. The results are recorded in table 45. Refreshments ranked highest of the activities, followed by picnics and outings and banquets.

Table 45. Evaluation of Recreational & Social Activities for Young Farmers

Activity	Teachers using		Teachers' Evaluation			
			Rank 1	Rank 2	Rank 3	
	No.	%	No.	No.	No.	Evaluation score *
Refreshments	149	66.52	115	24	10	403
Banquets	80	35.71	20	36	24	156
Picnics and outings	98	43.75	26	51	21	201
Athletic games	60	26.79	24	19	17	127
Others	27	12.05	12	4	11	55

* Rank of 1 = 3
Rank of 2 = 2
Rank of 3 = 1

Some of the young farmer classes were organized into young farmer chapters which were similar in many respects to the Future Farmers of America chapters for the high school boys enrolled in vocational agriculture. There was a State Association of Young Farmers in the States where 75 (about one-third) of the pilot centers were located. Membership in State Associations was held by 53 of the young farmer classes. A delegate was sent to the State Convention of Young Farmers by 51 of the pilot centers. Membership dues were paid by all classes which belonged to the State Associations. A fee was charged to enroll in class in 26 of the centers, with 61 classes charging assessments for class activities and 82 assessing fees for social occasions.

Summary

The following observations were noted pertaining to the young farmer classes in the pilot centers.

1. Young farmer classes were started in any month of the year.
2. Young farmer classes were run continuously throughout the year.
3. Meetings of the young farmer classes were not normally held less frequently than an average of once per month, each month of the year.
4. Young farmer classes were not necessarily held in the school building, although they were most frequently.
5. The young farmer classes tended to cover a multitude of topics with a trend toward emphasis in the farm management, farm mechanics, and livestock program areas.
6. Offerings of the young farmer classes were not limited to agriculture, but included training in leadership and participation in social events.
7. For two years the young farmers increased their excellence of performance in the farming practices used on their farms.

VALUES OF PARTICIPANTS IN THE NATIONAL YOUNG FARMER STUDY

The Rural Attitudes Profile

This analysis describes selected values expressed by participants at the beginning of the study and two years later at its end in 1961. The instrument used to measure values is the Rural Attitudes Profile devised by M. A. Straus. The values measured by this test are:

1. Innovation proneness,
2. Rural life preference,
3. Primary group preference, and
4. Economic motivation.

The meaning of each of these variables will be discussed as the scores are presented.

The range of attitude and value variables which are important for programs of agricultural education is almost infinitely great. The four variables measured by this instrument are not necessarily the most crucial value dimensions to be measured in this context. All that is claimed is that they are among those which are of theoretical relevance for understanding changes in American agriculture.

The Rural Attitudes Profile is a forced-choice test designed to minimize distortions due to the tendency to give a socially desirable answer when this conflicts with a true self-descriptive answer. Forced-choice technique as used in this test presents sets of items from which the respondent must use only the one which is most like himself and the one which is least like himself. This technique differs from the usual attitude test which asks the respondent to agree or disagree with a series of separate questions. The questions in each set of items in the present instrument have been so chosen that the choice of one is about as socially acceptable or desirable as the choice of another. However, each question refers to a different one of the four values being measured. The forced-choice format is felt to be less susceptible to distortion and faking than is the usual personality or attitude inventory, and there for probably provides a more valid measurement.

The finding from the analyses so far completed are summarized in table 46. The first row of this table presents the scores for only those farmers who completed both the before- and the after-testing. They are called the matched group becuase these are the men for whom it was possible to match and compare scores at the beginning and end of the program. There were 1,926 men in the matched group. The total group (row 2) varies in size since consderably more men completed the initial test than completed the final test.

Table 46. Percentile Equivalent of Mean Rural Attitude Profile Scores at Beginning and End of Study

Group	Percentile Equivalent of Mean Raw Score					
	Innovation prone			Rural life preference		
	Bef	Aft	Dif	Bef	Aft	Dif
Matched	68	71	+ 3	58	51	- 7
Total	66	70	+ 4	55	50	- 5
	Primary group preference			Economic motivation		
	Bef	Aft	Dif	Bef	Aft	Dif
Matched	48	50	+ 2	64	65	+ 1
Total	47	48	+ 1	63	64	+ 1

For the first testing the figures presented for the total group in table 46 are based on 3,262 persons, whereas for the post-test the figures are based only on 2,465 subjects.

The first question which can be answered with the data of table 46 has to do with the characteristics of all those who started the program. These are the figures presented in the row for the total group and the columns for "before" testing. The percentile norms used to compute these figures are based on an area probability sample of farm operators in the State of Washington, as reported by M. A. Straus. Since these are percentile norms, a score of 50 corresponds to the average (median) of the standardizing population. Scores higher than 50 indicate that the young farmers exceeded the scores of the cross section of farmers on which these norms are based, and scores below 50 indicate that the young farmer sample is below the average of this standardizing group.

Innovation Proneness

The total group originally tested had a median score of 66, which is 16 points higher than the score made by the cross section sample of Washington State farmers. What does this mean? A high score on the innovation scale indicates individuals who have an interest in and a desire to seek changes in farming techniques and to introduce such changes into their own operations. Such persons might tend to mark phrases such as "Have tried out several new farm practices in the last few years" as being most like themselves; and they might mark as least like themselves such phrases as "Believes that the traditional ways are the best ways of doing things." We infer that hihg scoring groups place an intrinsic positive valuation on keeping up with the latest technological developments. The median of 66 therefore indicates that at the start of the study, the original group were above the average of Washington State farmers in the extent to which they valued technological innovation. This is to be expected in an agricultural education program with voluntary participation, where motivation to use modern technology must be assumed. Moreover, when we consider the matched group; i.e., those who remained enrolled in the program for the entire 2 years and completed the after-test, the selectivity is even greater, as shown by the percentile score of 68.

Although 16 or 18 points above the median may not seem to be a very marked selectivity or deviation from a representative sample of farmers, it must be remembered that the norms used for this comparison are from the State of Washington, a State which is probably above average in the extent to which farm operators are innovation prone compared to other areas of the country, particularly the Southeast.

In order to see if there is any difference in the extent to which the young farmers placed a high value on technological innovation at the end, as compared to the beginning, of the program, the first row of table 46, which gives the scores for the matched group, may be examined. Participants in the program increased their innovation scores for 68 to 71, a net gain of 3 percentile points. With comparison based on almost 2,000 cases, this difference like all differences shown in row 1 of table 46 is statistically significant. It shows that scores of participants in the national young farmer program indicated a greater tendency to value technological innovation positively at the end than at the beginning of the study.

It is important to bear in mind that the data in table 46 provide no evidence that this change was in any way due to participation in the program. It is entirely possible that a group with this much initial interest in technological innovation would have changed by this amount in any case. In order to be able to conclude that the increase in innovation scores was due to participation in the program, it would be necessary to have before and after data for a control group which did not participate.

Economic Motivation

With regard to the scores reported for the economic motivation scale of the Profile, table 46 shows that those who began this program were above the average of the cross section of Washington State farm operators, in this case by 13 percentile points as compared to 16 above in respect to innovation proneness.

High scores on the economic motivation scale are intended to indicate groups whose value system emphasizes monetary gain more than such traditional rural values as freedom from debt and self-sufficiency. Such persons might be expected to choose as least like themselves items like "Would rather make $3,000 a year and be free of debt than make $5,000 a year and be in debt"; and as most like themselves "Finds that one of the greatest helps in farming is to keep good records". Thus the young farmers who started in the study were not a representative group of farm operators but were above average in the extent to which they emphasized pecuniary factors. Moreover, those who stayed with the program to the final testing were, at the start, even slightly more above average in this respect.

Changes in economic motivation scores over the 2-year period were slight but, due to the large samples involved, statistically significant. The matched group increased their scores from 64 to 65, a gain of only 1 point, compared to the gain of 3 points which occurred in respect to innovation scores. Thus, if it is assumed that the changes from the first testing to the second testing were due, at least in part, to participation in the program, it can be concluded that the program had less effect in changing the economic values of those participating than it did in changing their receptivity to technological innovation. This points to a possible weak spot in the program, since it is widely recognized that fiscal management and profit motivation are highly important for success in any business venture. However, attention must again be drawn to the fact that data for a control group are not available.

Rural Life Preference

Persons who make high scores on this scale tend to choose items such as "Likes to watch things grow" as being most like themselves and "Dislikes being tied down to chores or irrigating" as least like themselves. Thus the scores shown in table 46 indicate that participants in this study started out only slightly higher (5 percentile points) than the cross section of Washington State farmers in the extent to which they valued farming and rural residence as the most desirable pattern of working and living.

Turning to change after 2 years in the program, table 46 shows that the percentile scores for the matched group declined from 58 at the start to 51 at the end, or a net decrease of 7 percentile points. Although there is really no way of knowing if this change is the result of the program, it might be concluded that the net effect of participation in the program was a disenchantment with rural life. Alternatively, the change might reflect a tendency to view farming and rural residence more realistically and objectively, as merely one of a number of possible occupations.

Primary Group Preference

The only value on which the study sample obtained scores below those of the average Washington State fram operator was the one termed primary group preference. High scores on this scale are made by individuals who find their associational needs best met by primary contacts with family and neighbors, in contrast to those who seek the greater freedom and diversity of the urban pattern of association. A high scoring individual might mark as least like himself an item such as "Gets little pleasure out of visiting neighbors" and as most like himself "Feels a family ought to do things together".

It can be seen from table 46 that the total group of young farmers beginning the study averaged 3 percentile points below the cross section of Washington State farm operators in the extent to which they valued primary group interaction. The matched group who continued throughout the program averaged 2 points lower than the norm. The net change after 2 years in the program was an increase from 48 to 50, a gain of 2 percentile points. It might possibly be concluded that participation in this program had the effect of increasing the extent to which farmers valued interaction with their kin and neighbors.

Summary

Scores resulting from the Rural Attitudes Profile show that the men studied in the National Young Farmer Study were not representative of farm operators in general in respect to the values measured by this instrument. As might be expected with a voluntary participation program, even before the start of the program, the study group was above average in the extent to which they placed high value on technological innovation and financial reward.

Scores obtained after 2 years of participation in the program showed a net increase in both economic motivation and innovation proneness; an increase in the extent to which these men valued interaction with their kin and neighbors; and a net decline in what might be called economically irrational preference for farming and rural residence.

In a rapidly changing society, and with an above average group such as the one studied, changes of the magnitude reported could have occurred even had there been no program. But assuming that at least part of the changes are the result of participation in the study, it is possible to interpret the findings as showing that the program strengthened values relating to farming and rural life which are functional for success in modern agriculture, without at the same time adversely affecting the enjoyment of typically rural patterns of interpersonal relations.

RELATIONSHIP OF YOUNG FARMER CLASSES WITH OTHER AGENCIES

Support of Young Farmer Classes from Other School Personnel

The teachers of the young farmer classes were asked about the support they needed and received from the other school personnel with whom they worked. The results of their evaluation are recorded in table 47.

Table 47. Support for Young Farmer Classes from Other School Personnel
(Number of classes=222)

Degree of support	Personnel				
	Superintendent	Principal	School board	Advisory council	Others
	No.	No.	No.	No.	No.
Received:					
Complete	98	97	90	70	7
Much	41	41	46	24	2
Some	45	51	53	24	1
Little	21	21	18	7	0
None	10	8	9	70	161
Needed:					
Complete	114	108	107	77	4
Much	59	68	67	42	7
Some	30	28	28	13	1
Little	9	6	8	7	0
None	4	6	4	56	160

The teachers felt that support for the young farmer classes was important, 78 percent of them stating that much or complete support was needed from the superintendent. Sixty-three percent of the teachers said they were getting much or complete support from their superintendent.

Participation by the School Administration

The teachers were also asked about the participation of the school administration in the young farmer program. The replies are listed in table 48. Obviously the number of responses in the none column was disturbing to several of the teachers.

Table 48. Participation in the Young Farmer Program by the School Administration

(Number of classes=220)

Activity	Degree of Participation		
	Frequently	Occasionally	None
	No.	No.	No.
Attended young farmer class	17	100	97
Attended social and/or recreational events	18	73	103
Inquired concerning program	82	115	23
Appeared on program	6	67	132
Visited with young farmers on their farms	5	86	123
Visited high school classes in vocational agriculture	58	125	26
Promoted the program	64	118	83
Participated otherwise	8	99	47

Attitude of Others Toward the Young Farmer Program

The teachers of the young farmer classes were asked to express an opinion about any change of attitude of those in the school and community toward the program during the 2-year pilot study. The responses of the teachers are shown in table 49.

Table 49. Attitude of Others Toward the Young Farmer Program

(N=220)

People	Unchanged	Greatly improved	Somewhat improved	Not as good
School board	106	47	64	0
Superintendent	88	65	61	1
Principal	80	75	60	2
Teachers	82	42	83	0
Advisory council	43	70	31	0
Vocational agriculture boys	52	103	56	1
Adult farmers	47	98	74	0
Business men	66	78	65	0
Others	6	1	0	0

The responses of the teachers, as shown in table 49, indicate that attitudes were usually improved or unchanged. The lack of responses in the "Not as good" column are apparent. It may be noted that the boys enrolled in vocational agriculture and the adult farmers in the community had significant change for the better.

Summary

The following observations were noted concerning the relationship of young farmer classes with other agencies:

1. The average enrollment in the young farmer classes was 20 students.
2. A survey of the community was rated by the teachers as being the most valuable source of names for prospective young farmers, and was used most frequently by the teachers in the pilot centers.

3. Personal contact was rated by the teachers as the most valuable method of recruitment of young farmer class members and was the model method used.
4. The most popular class organization was that of elected officers and functioning committees.
5. The class had officer-conducted business meetings usually in connection with the instructional meetings.
6. The most popular method of making decisions relating to the class was by the class deciding as a group under the guidance of the teacher, the officers and the committee.
7. The teaching method rated highest by the instructors was the "group discussion-teacher leader" technique.
8. Young farmer class members were able to conduct the teaching activities of some of their own classes under the guidance of the teacher.
9. The most popular teaching aids for the young farmer class were the agricultural bulletins from the land grant colleges or the U. S. Department of Agriculture.
10. Young farmers' wives attended classes with them on occasion when the class topic was of interest to them.
11. On-the-farm instruction was an important part of the young farmer program in the pilot centers, with little variation among the months in the median number of calls made per month.
12. The young farmers received on-the-farm instruction 2, 3, or 4 times per year, with most of the sessions lasting one hour.
13. The awarding of certificates and a dinner event were popular activities of the young farmer classes.

14. The majority of the pilot centers had social and/or recreational activities in connection with some of their class meetings.

15. Having refreshments for the class was rated as the most valuable recreational and social activity by the teachers of the young farmers.

16. Many of the young farmer classes were organized into young farmer chapters and affiliated with the State organization where one existed, participating in a state-wide program.

17. The young farmers paid fees as a rule where special funds were necessary for their training.

18. The teachers of the young farmer classes indicated that they felt it was important to the success of the class to have the support of the school administration, and others affiliated with the school. Such support was usually received, not always as strongly as the felt need was expressed by the teachers.

19. There was some participation in the young farmer program by the school administrator; usually, however, less than desired by the instructor and usually less than the participation by the administrator in other phases of the program of vocational agriculture.

20. The teachers of the young farmer classes in the pilot centers felt that the attitude of all other persons and groups who had contact with vocational agriculture either improved or remained unchanged during the two year test period.

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